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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,442	12/26/2000	Wolfgang Daum	9D-HR-19571 - Daum et al	1702
7590	11/17/2004		EXAMINER HUANG, SIHONG	
John S. Beulick Armstrong Teasdale LLP One Metropolitan Square Suite 2600 St. Louis, MO 63102			ART UNIT 2632	PAPER NUMBER

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/747,442

Applicant(s)

DAUM ET AL. 

Examiner

Sihong Huang

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 25 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                                           |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                               | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                      | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/2/02 &amp; 4/28/03</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Response to Election/Restrictions Argument with Traverse*

1. Applicant's election with traverse of the invention of Group I, claims 1-15 in the reply filed on August 25, 2004 is acknowledged. The argument is not found persuasive for the following reasons.

- a) In response to applicant's argument that the inventions set out by the claims in Groups I and II are clearly related, applicant does not provide any evidence to show they're not related, but merely a general statement.
- b) Applicant argued that both the cited Claim Groups each fall within Class 340, and a thorough search and examination of one Group would be relevant to the examination of the other Group and would not be a serious burden on the Examiner. Even if both Groups fall within the same Class/Subclass, as long as they're distinct subject matters, they're restrictable.
- c) Applicant further argued that requirements for election are not mandatory under 35 U.S.C. §121. However, Rule 37 C.F.R. 1.142 (Requirement for Restriction) clearly states "**if two or more independent and distinct inventions** are claimed in a single application, the **examiner** in an Office action **will require the applicant** in the reply to that **action to elect an invention** to which the claims will be restricted, this official action being called a requirement for restriction" (emphasis added). Furthermore, Rule 37 C.F.R. 1.146 states "In the first action on an application containing a generic claim to a generic invention (genus) and claims to **more than one patentably distinct species** embraced thereby, **the examiner may require the applicant** in the reply to that action to

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**elect a species** of his or her invention to which his or her claim will be restricted if no claim to the genus is found to be allowable” (emphasis added). Consequently, under the aforementioned rules, examiner can require applicant to elect a single invention or species for examination.

Thus, for the above reasons, the restriction is proper and retained. Therefore, this office action is directed to the elected invention of Group I, claims 1-15.

#### ***Oath/Declaration***

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The following information is missing: inventors’ signatures, residences, citizenships and mailing addresses.

#### ***Claim Objections***

3. Claims 3 and 8 are objected to because of the following informalities:

In claim 3, “said appliance communication” should read – said appliance communication connection – for clarity and consistency.

In claim 8, line 2, “processing circuit” should read – processing circuitry – for clarity and consistency.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-7 and 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Bailey et al. (US 6,731,201 B1).

**Regarding claims 1 and 10**, Bailey et al. (hereinafter Bailey) disclosed a communication interface (300, see Fig. 3A) for interfacing an appliance (100) with a power line carrier communication system (see Fig. 1B), the communication interface (300, see Fig. 3A) comprising: at least one power line connection (345 and 346) for coupling said communication interface to a power line (through 221/222 or 217/219 to 225/227, see Fig. 2); at least one appliance communication connection (321, 323, 325) for coupling said communication interface to an appliance (through 212/215, see Fig. 2); and processing circuitry (320, 330, 340) for receiving a power line carrier transmission and translating the power line carrier transmission between a power line communication protocol and an appliance communication protocol (col. 5, lines 64-67 and col. 6, lines 41-44).

**Regarding claim 2**, Bailey disclosed a signal processor (PLC Transceiver 330) and a communication processor (protocol translator 320). See col. 7, lines 11-19.

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**Regarding claims 3 and 11**, Bailey disclosed that the appliance communication (204, 231 in Fig. 2; 321, 323, 325 in Fig. 3A; also see Fig. 4) is a serial bus connection (col. 4, line 35, col. 4, line 65 to col. 5, line 11).

**Regarding claims 4 and 12**, Bailey disclosed a bi-directional appliance communication connection (transmit and receive lines 215, 212 in Fig. 2; also see Fig. 3D for Tx, Rx lines). Also see col. 6, line 53 to col. 7, line 19.

**Regarding claims 5 and 13**, Bailey disclosed a bi-directional power line carrier connection (col. 6, line 39 to col. 7, line 19).

**Regarding claim 6**, Bailey disclosed that the appliance communication connection comprises a signal line (Tx 321, Rx 323) and a signal ground line (Gnd, 325). See Figs. 3A and 3D.

**Regarding claims 7 and 14**, Bailey disclosed a buffer (3203 in Fig. 3D, also see col. 8, line 34).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8, 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al. (US 6,731,201 B1).

**Regarding claim 8**, although Bailey does not specifically disclose that the processing circuit comprises a general purpose UART. Bailey in col. 4, lines 39-48 disclosed the use of UART software/protocol in the appliance's controller for allowing the appliance controller to communicate using the communication port 204. Such well known software/protocol would have been obviously if not inherently included in the processing circuitry of the communication module 300 of Bailey in order to provide the two-ways communications and translations between the appliances and the different communications media.

**Regarding claims 9 and 15**, although Bailey does not disclose that the power line connection comprises at least one of a 120V or 240V power line connection, Bailey in Fig. 1B disclosed the connection of the appliance 100 (col. 3, lines 44-46) to a conventional electrical outlet 104. 120V, 60 Hz AC power line is a conventional AC power line through a conventional electrical outlet. And therefore providing a 120V power line connection in the communications module of Bailey would have been obvious to an ordinary person skilled in the art.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art references Abrams et al. (US Pat. No. 6,587,739 B1) and Cunningham et al. (US Pub. No. 2002/0011923 A1) are cited to show a similar appliance communication and control system.

Prior art reference Rye et al. (US Pat. No. 6,229,433 B1) is cited show an appliance control connected to a conventional 120V electrical ac power source.

Prior art references listed in IDS 1449 Forms filed Jan. 02, 2002 and Apr. 28, 2003 are considered by the examiner. Prior art references listed in eIDS 1449 Form filed Oct. 4, 2002 are duplicate of the one filed on Jan. 02, 2002, and therefore are not considered for a second time.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sihong Huang whose telephone number is 571-272-2958. The examiner can normally be reached on Mon, Thu & Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sihong Huang  
November 5, 2004

